

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.)		I. EPA I.D. NUMBER 4952		TIA 13		C 14		D 15				
LABEL ITEMS		PLEASE PLACE LABEL IN THIS SPACE		GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.										
I. EPA I.D. NUMBER		VA 0025992												
III. FACILITY NAME		Floyd-Flotd County Public Service Authority												
V. FACILITY MAILING ADDRESS		P.O. Box 407, Floyd, VA 24091												
VI. FACILITY LOCATION		169 PSA Rd												
II. POLLUTANT CHARACTERISTICS														
INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.														
SPECIFIC QUESTIONS				Mark "X"		SPECIFIC QUESTIONS				Mark "X"				
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)				YES	NO	FORM ATTACHED		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)				YES	NO	FORM ATTACHED
				X		2A						X		
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)					X			D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)					X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)					X			F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)					X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)					X			H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)					X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)					X			J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)					X	
III. NAME OF FACILITY														
1 SKIP Floyd- Floyd County Public Service Authority														
15 16 - 29 30 69														
IV. FACILITY CONTACT														
A. NAME & TITLE (last, first, & title)						B. PHONE (area code & no.)								
2 N Elwood Holden Superintendent						540 745 2169								
15 16 45 46 48 49 51 52 55														
V. FACILITY MAILING ADDRESS														
A. STREET OR P.O. BOX														
3 P O Box 407														
15 16 46														
B. CITY OR TOWN														
4 Floyd														
15 16 40 41 42 47 51														
C. STATE														
V A														
D. ZIP CODE														
2 4 0 9 1														
15 16 40 41 42 47 51														
VI. FACILITY LOCATION														
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER														
5 1 6 9 PSA Rd Rt 221 west of town of Floyd														
15 16 45														
B. COUNTY NAME														
Floyd														
46 70														
C. CITY OR TOWN														
D. STATE														
V A														
E. ZIP CODE														
2 4 0 9 1														
15 16 40 41 42 47 51 52 54														
F. COUNTY CODE (if known)														

VII. SIC CODES (4-digit, in order of priority)

VIII. OPERATOR INFORMATION

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other," specify.)E. STREET OR P.O. BOXF. CITY OR TOWN

X. EXISTING ENVIRONMENTAL PERMITS

B. UIC (Underground Injection of Fluids)

C. RCRA (Hazardous Wastes)

XI. MAP

XII. NATURE OF BUSINESS (provide a brief description)

Flow: 0.25 MGD

COMMENTS FOR OFFICIAL USE ONLY	
C	
C	
15	16

FACILITY NAME AND PERMIT NUMBER:

Floyd-Floyd County Public Service
Authority VA 0025992Form Approved 1/14/99
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BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information Packet.

A.1. Facility Information.

Facility Name Floyd-Floyd County Public Service Authority

Mailing Address P.O. Box 407
Floyd, VA 24091

Contact Person N. Elwood Holden

Title Superintendent

Telephone Number (540) 745-2169

Facility Address 169 PSA Road
(not P.O. Box) _____

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant Name N/A

Mailing Address _____

Contact Person _____

Title _____

Telephone Number () _____

Is the applicant the owner or operator (or both) of the treatment works?

☒ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☐ facility ☒ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES VA0025992

UIC _____

RCRA _____

PSD _____

Other _____

Other _____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
<u>Town of Floyd</u>	<u>+ 1500</u>	<u>Separate</u>	<u>Municipal</u>
<u>Surrounding area</u>	<u>+</u>	<u>Separate</u>	<u>Municipal</u>
<u>of Town of Floyd</u>	<u>- 300</u>		
<u>Total population served</u>	<u>1550</u>		

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A.5. Indian Country.

- a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ NoA.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

- a. Design flow rate
- .250
- mgd

	<u>Two Years Ago</u>	<u>Last Year</u>	<u>This Year</u>
b. Annual average daily flow rate	<u>.142</u>	<u>.096</u>	<u>.120</u>
c. Maximum daily flow rate	<u>.837</u>	<u>.773</u>	<u>.563</u>

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

- ☒ Separate sanitary sewer 100 %
- ☐ Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.?
- ☒
- Yes
- ☐
- No

If yes, list how many of each of the following types of discharge points the treatment works uses:

- i. Discharges of treated effluent 1
- ii. Discharges of untreated or partially treated effluent _____
- iii. Combined sewer overflow points _____
- iv. Constructed emergency overflows (prior to the headworks) _____
- v. Other _____

- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each surface impoundment:

Location: N/AAnnual average daily volume discharge to surface impoundment(s) N/A mgdIs discharge ☐ continuous or ☐ intermittent?

- c. Does the treatment works land-apply treated wastewater?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each land application site:

Location: N/A

Number of acres: _____

Annual average daily volume applied to site: _____ mgd

Is land application ☐ continuous or ☐ intermittent?

- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?
- ☐
- Yes
- ☒
- No

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If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

N/A

If transport is by a party other than the applicant, provide:

Transporter Name _____

Mailing Address _____

Contact Person _____

Title _____

Telephone Number () _____

For each treatment works that receives this discharge, provide the following:

Name _____

Mailing Address _____

Contact Person _____

Title _____

Telephone Number () _____

If known, provide the NPDES permit number of the treatment works that receives this discharge _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8. through A.8.d above (e.g., underground percolation, well injection): ☐ Yes ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed by this method: N/A

Is disposal through this method ☐ continuous or ☐ intermittent?

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WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number 001
- b. Location 24091
(City or town, if applicable) (Zip Code)
Floyd VA
(County) (State)
N 36° 54' 37" W 80° 20' 17"
(Latitude) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate 100 mgd
- f. Does this outfall have either an intermittent or a periodic discharge? ☐ Yes ☒ No (go to A.9.g.)
If yes, provide the following information:
Number of times per year discharge occurs: _____
Average duration of each discharge: _____
Average flow per discharge: _____ mgd
Months in which discharge occurs: _____
- g. Is outfall equipped with a diffuser? ☐ Yes ☐ No

A.10. Description of Receiving Waters.

- a. Name of receiving water Dodd Creek
- b. Name of watershed (if known) New River
United States Soil Conservation Service 14-digit watershed code (if known): N/A
- c. Name of State Management/River Basin (if known): N/A
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): N/A
- * d. Critical low flow of receiving stream (if applicable)
acute 1010=4.1 cfs chronic 0010=4.6 cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of CaCO₃

*per DEQ memo - Sept. 19, 1995

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Authority VA0025992

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A.11. Description of Treatment

- a. What levels of treatment are provided? Check all that apply.

☒ Primary☒ Secondary☐ Advanced☐ Other. Describe: _____

- b. Indicate the following removal rates (as applicable):

Design BOD5 removal or Design CBOD5 removal 90 %Design SS removal 90 %Design P removal N/A %Design N removal N/A %

Other _____ %

- c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe:

chlorine-gas-dechlorinates SO2

If disinfection is by chlorination is dechlorination used for this outfall?

☒ Yes☐ No

- d. Does the treatment plant have post aeration?

☐ Yes☒ No

A.12 Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.3	s.u.			
pH (Maximum)	7.9	s.u.			
Flow Rate	.773	MGD	.251	MGD	1613
Temperature (Winter)	24	c	14.6	c	571
Temperature (Summer)	32	c	22.2	c	1042

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD5	56	mg/l	13.8	mg/l	636	8SM 18 TH ED 53210B	5mg/l
	CBOD5	N/A						
FECAL COLIFORM	E. coli	76.9	ml	14	ml	28	SM 9223B	2md/l
TOTAL SUSPENDED SOLIDS (TSS)		64	mg/l	14.4	mg/l	636	EPA #160.2	1mg/l

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BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

1500 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

smoke test

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- The area surrounding the treatment plant, including all unit processes.
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- Each well where wastewater from the treatment plant is injected underground.
- Wells, springs, other surface water bodies, and drinking water wells that are: 1) within $\frac{1}{4}$ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where the hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ☐ Yes ☒ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

Telephone Number: () _____

Responsibilities of Contractor: _____

B.5. Scheduled improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

- a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

N/A

- b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

☐ Yes ☐ No

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c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable)

N/A

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM/DD/YYYY	Actual Completion MM/DD/YYYY
- Begin Construction	1/1	1/1
- End Construction	1/1	1/1
- Begin Discharge	1/1	1/1
- Attain Operational Level	1/1	1/1

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly:

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide effluent testing for the following listed parameters and those required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum effluent testing data must be based on at least three pollutant scans, preferably represent several seasons, and must be no more than four and on-half years old.

Outfall Number: 001

Outfall Number: 001							
POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS							
AMMONIA (as N)	2.57	mg/l	.85	mg/l	54	Sm 4500	0.10 mg/l
CHLORINE (TOTAL RESIDUAL, TRC)	< QL	mg/l	< QL	mg/l	1613	Cl-G 4500	.046mg/l
DISSOLVED OXYGEN	9.80	mg/l	5.19	mg/l	1613	0 4500	3.0 mg/l
TOTAL KJELDAHL NITROGEN (TKN)	3.97	mg/l	3.97	mg/l	1 Grab	sm 4500n.c	.50 mg/l
NITRATE PLUS NITRITE NITROGEN	15.6	mg/l	15.6	mg/l	1 Grab	EPA 300.0	.100mg/l .010 mg/l
OIL and GREASE	< 5	mg/l	< 5	mg/l	1 8/H comp	EPA 1664A	5mg/l
PHOSPHORUS (Total)	1.84	mg/l	1.84	mg/l	1 8/H comp	EPA365.3	.250 mg/l
TOTAL DISSOLVED SOLIDS (TDS)	417	mg/l	417	mg/l	1 8/H comp	EPA 1604	4 mg/l
OTHER							

END OF PART B.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Floyd-Floyd County Public Service
Authority VA0025992

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BASIC APPLICATION INFORMATION**PART C. CERTIFICATION**

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

☒ Basic Application Information packet

Supplemental Application Information packet:

☐ Part D (Expanded Effluent Testing Data)

☐ Part E (Toxicity Testing: Biomonitoring Data)

☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

☐ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title N. Elwood Holden, Superintendent

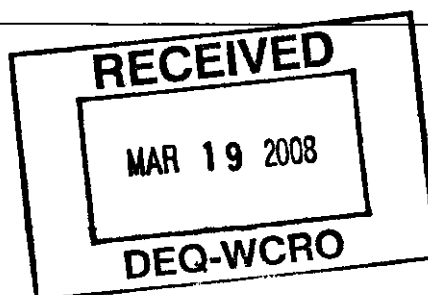
Signature *N. Elwood Holden*

Telephone number (540) 745-2169

Date signed March 18, 2008

Upon request of the permitting authority, you must submit any other information necessary to assure wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:



VPDES Permit Application Addendum

1. Entity to whom the permit is to be issued: Floyd-Floyd County Public Service
Who will be legally responsible for the wastewater treatment facilities and Authority compliance with the permit? This may or may not be the facility or property owner.
2. Is this facility located within city or town boundaries? Y/N
Provide the tax map parcel number for the land where the discharge is located.
3. For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities? 0
4. What is the design average effluent flow of this facility? .250 MGD
For industrial facilities, provide the maximum 30-day average production level.
5. In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Y/N
If "Yes", please identify the other flow tiers (in MGD) or production levels:

Please consider the following questions for both the flow tiers and the production levels (if applicable):

6. Do you plan to expand operations during the next five years? No
7. Is your facility's design flow considerably greater than your current flow? yes
8. Nature of operations generating wastewater:
domestic, one small industry (Hollingsworth and Vose). An
average flow discharged to The Floyd PSA for the past seven
months was 16,220 gpd from their pretreatment facility.
Attachment enclosed
9. 96 % of flow from domestic connections/sources.
10. Number of private residences to be served by the treatment works: 440
11. 4 % of flow from non-domestic connections/sources.
12. Mode of discharge: X Continuous Intermittent Seasonal
13. Describe frequency and duration of intermittent or seasonal discharges.

14. Identify the characteristics of the receiving stream at the point just above the facility's discharge point: attachment - evaluations performed in 2000
of upstream

15. Select receiving stream character:

☒ Permanent stream, never dry

☐ Intermittent stream, usually flowing, sometimes dry

☐ Ephemeral stream, wet-weather flow, often dry

☐ Effluent-dependent stream, usually or always dry without effluent flow

☐ Lake or pond at or below the discharge point

☐ Other: _____

16. Approval Date(s):

O & M Manual January 9, 2005

Sludge/Solids Management Plan August 2000

17. Have there been any changes in your operation or procedures since the above approval? Y/N

Treatment System

a. **Pretreatment/Headworks and Surge Tank**

Sewage is received into the headworks via an 8" sanitary sewer line. The headworks of the plant is designed for pretreatment of the raw wastewater. During pretreatment, larger objects are removed or processed so as not to damage or interfere with the equipment operation downstream. There is a surge tank between the headworks and primary clarifiers, to dampen the flow if system pump stations discharge simultaneously.

b. **Clarification**

Sewage is received from pretreatment into one or both of two circular settling tanks called the primary clarifiers. Scrapers remove the sludge at the bottom and skim the surface after settling. After flowing over a weir it goes to the Rotating Biological Contactors (RBC) via an 8" pipe.

c. **Biofiltration/Rotating Biological Contactors**

From the primary clarifiers the wastewater flow is split between the 2 primary rotating biological contactors (RBC). The primary RBC's are separated by a baffle wall into 2 stages with a standard density media and a high density media stage. The discharge from the second stage of both primary RBCs is combined and flows to RBC #3. RBC #3 is separated into two chambers by a baffle wall. Both areas are loaded with high density media. The standard density media has approximately 100,000 sq. ft surface area on a 27 ft shaft, and the high density has approximately 150,000 sq. ft on a similar length shaft. These large surface areas provide for a fixed film growth, with later stages using high density media where thinner biological growths occur.

d. **Secondary Clarification**

Sewage is received from the RBCs into one or both of two circular settling tanks called the secondary clarifiers. Scrapers remove the sludge at the bottom and skim the surface after settling. After flowing over a weir it goes to the Chlorine Contact Tank via a 10" pipe.

e. **Disinfection**

The effluent from the final clarifiers flows through an 8" pipe to the baffled chlorine contact tank. Chlorine is added in the effluent line from the secondary clarifiers. Sulfur dioxide is added as the water leaves the CCT to the metering chamber.

f. **Sludge Pumps**

NATURE OF BUSINESS (continued)

All the sludge collected at the plant feeds by gravity to the sludge well. The sludge is then pumped to the aerobic digesters via a 4" pipe.

g. **Aerobic Digester**

The aerobic digester serves to stabilize and concentrate the sludge prior to going to the sludge press in the mechanical building.

h. **Sludge Handling and Disposal**

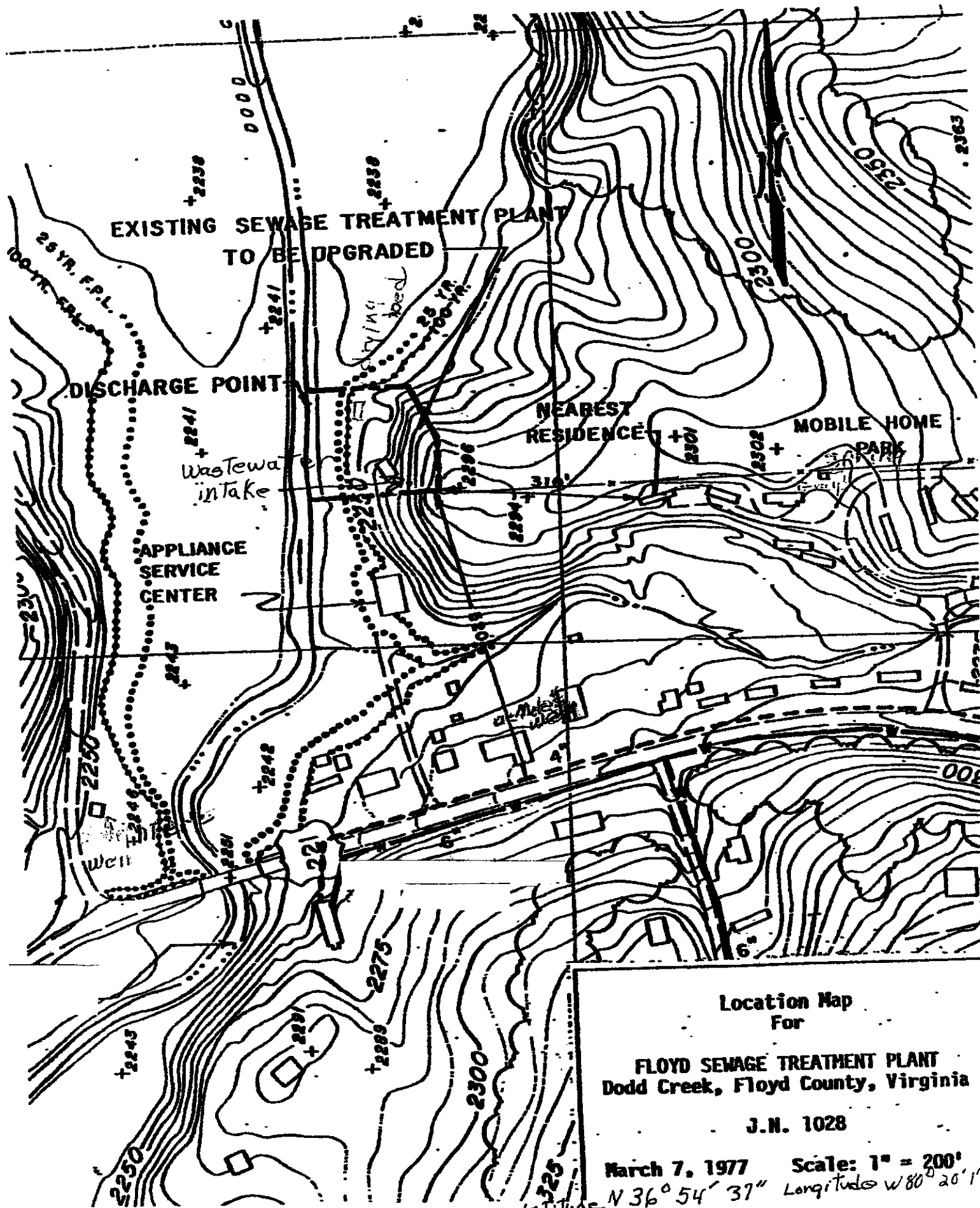
Stabilized and thickened sludge is pumped to the belt press system, (or in emergencies, the backup sludge drying beds) where it is pressed dry and stored in the mechanical building until hauled to the Maplewood Recycling and Waste Disposal facility in Amelia County.

i. **Decant Pumps**

The decant pumps are used to pump the wastewater back to the primary clarifiers for recirculation through the plant. The wastewater coming into the decant well includes drainage from sludge drying beds, decant from the aerobic digester, drainage from the operations and mechanical buildings and drainage from the grit filter.

j. **Effluent Metering & Sampling**

The metering and post aeration chamber is the last step of the plant. An ultrasonic flow meter measures the discharge rate, through a V-Notch Weir and records and totalizes the flow. An ultrasonic, flow transducer megaphone sends an electrical signal back to the operations building to record the flow on a strip chart recorder. The wastewater effluent from the metering chamber flows through a cascade aeration channel before its release to Dodd Creek.



Location Map
For

FLOYD SEWAGE TREATMENT PLANT
Dodd Creek, Floyd County, Virginia

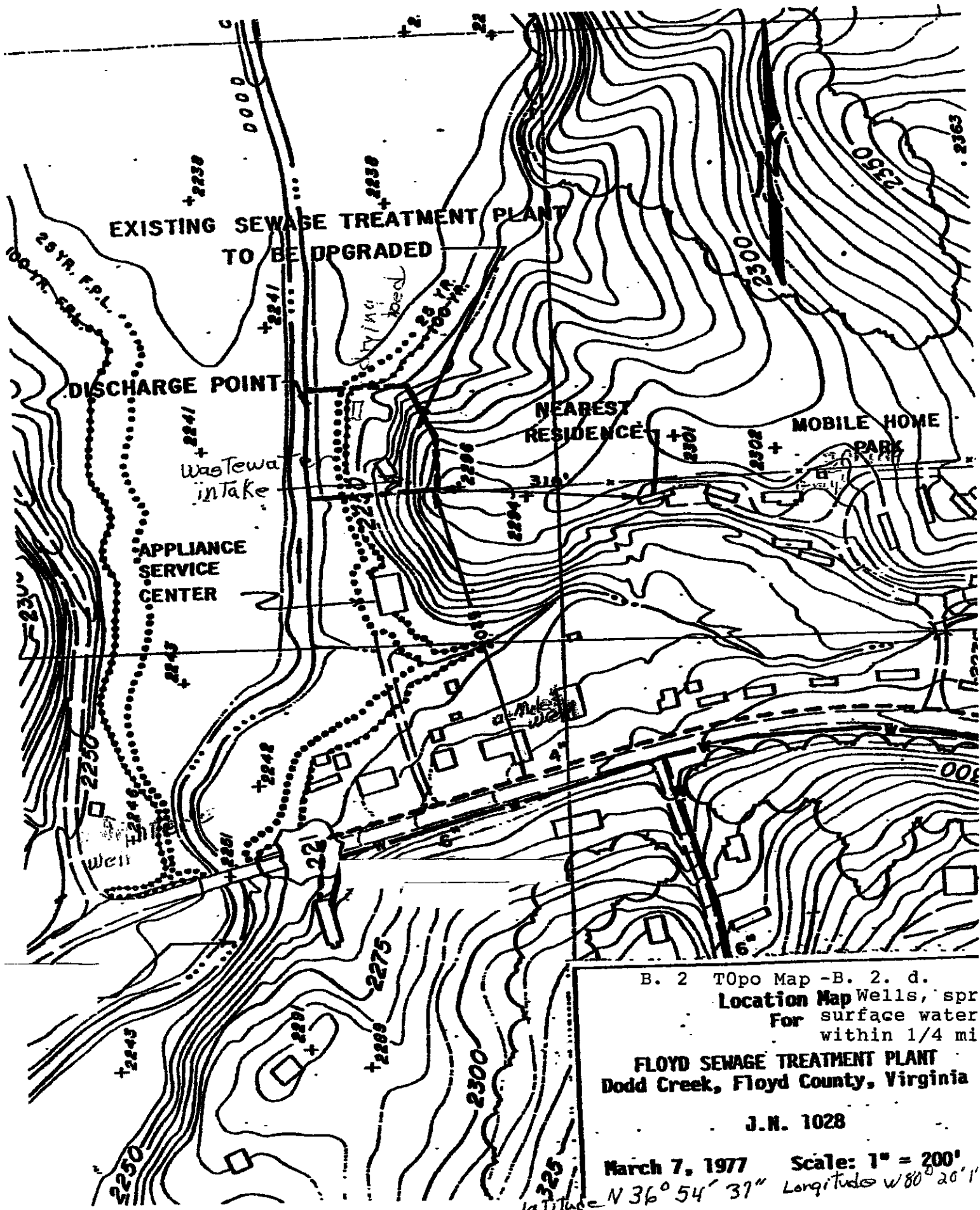
J.N. 1028

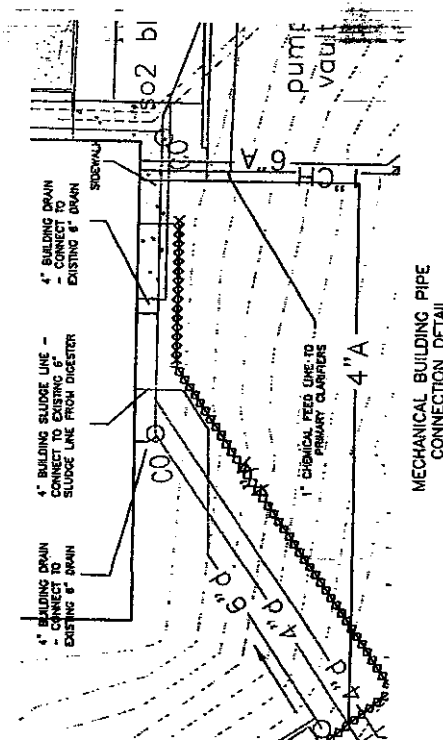
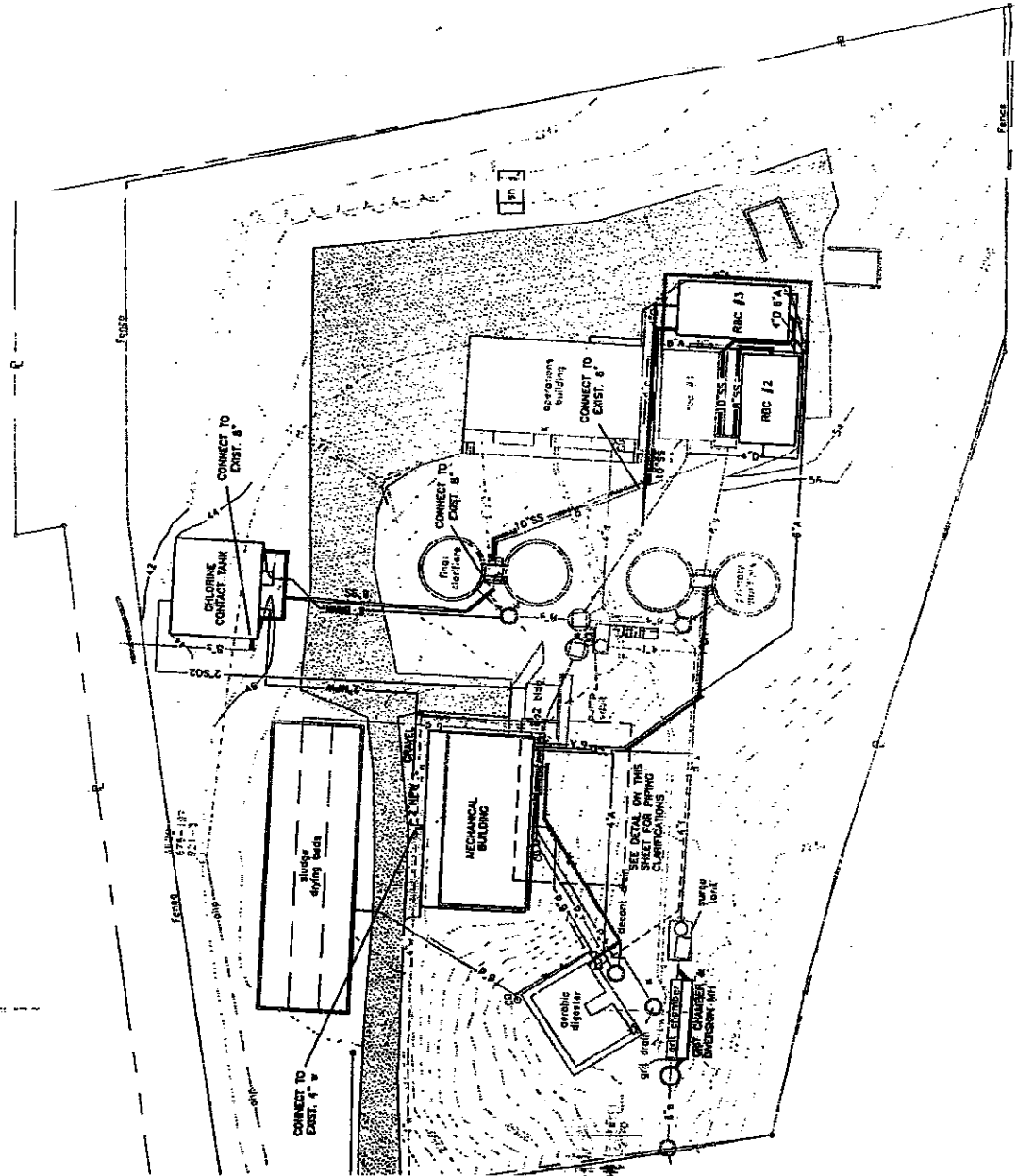
March 7, 1977

Scale: 1" = 200'

Latitude N 36° 54' 37" Longitude W 80° 20' 17"

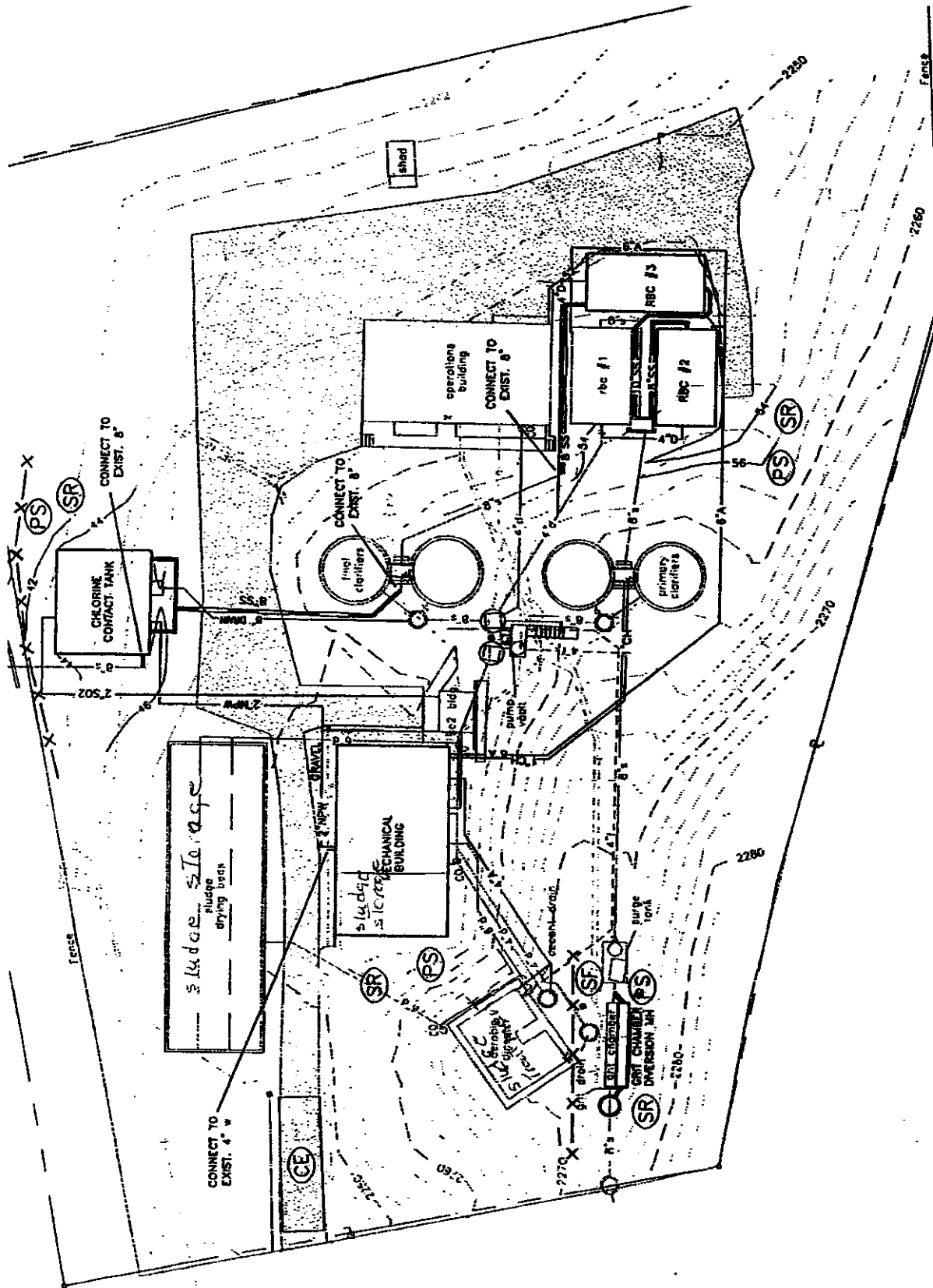
X 1





- NOTES:
1. RESTORE EXISTING GRAVEL DRIVE IMMEDIATELY AFTER COMPLETION OF PIPE INSTALLATION. MAINTAIN ACCESS THROUGHOUT CONSTRUCTION.
 2. GRADE SMOOTH AND TOP EXISTING GRAVEL DRIVE AT COMPLETION OF CONSTRUCTION WITH 2 INCHES OF 100# NO.21A STONE.
 3. MAINTAIN EXISTING OUTFALL PIPE DURING CONSTRUCTION OF NEW CHLORINE CONTACT TANK.
 4. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AROUND ALL NEW STRUCTURES.

Alison P. P.
UK ITS



Sludge Treatment + Storage

NOTE: 25-YEAR FLOOD ELEVATION = 2245.0'
100-YEAR FLOOD ELEVATION = 2246.0'

B.D.E

No. 14 Characteristics of the receiving stream at point above facility's discharge point

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Water Quality Assessments

629 East Main Street P.O. Box 10009 Richmond, Virginia 23219

SUBJECT: Flow Frequency Determination
Floyd STP - #VA0025992

TO: Lewis Pillis, WCRO

FROM: Paul E. Herman, P.E., WQAP

DATE: March 3, 2000

COPIES: Ron Gregory, Charles Martin, Eugene Powell, File

This memo supersedes my December 12, 1997, memo to you concerning the subject VPDES permit.

The Town of Floyd STP discharges to the Dodd Creek near Floyd, VA. Stream flow frequencies are required at this site for use by the permit writer in developing effluent limitations for the VPDES permit.

The VDEQ conducted several flow measurements on the Dodd Creek from 1996 to 1999. The measurements were made above the Floyd STP outfall. The measurements correlated very well with the same day daily mean values from the continuous record gage on the Little River at Graysontown, VA (#03170000). The measurements and daily mean values were plotted on a logarithmic graph and a best fit line was drawn through the data points. The required flow frequencies from the reference gage were plugged into the equation for the regression line and the associated flow frequencies at the measurement site/discharge point were calculated. The data for the reference gage and the measurement site/discharge point are presented below:

Little River near Graysontown, VA (#03170000):

Drainage Area = 300 mi²

1Q10 = 63.4 cfs	High Flow 1Q10 = 91.8 cfs
7Q10 = 70.9 cfs <i>45.852</i>	High Flow 7Q10 = 114 cfs
30Q5 = 104 cfs	HM = 233 cfs

Dodd Creek at Floyd STP, at Floyd, VA (#03169220):

Drainage Area = 19.25 mi²

1Q10 = 7.55 cfs <i>4.879</i>	High Flow 1Q10 = 10.01 cfs
7Q10 = 8.22 cfs <i>5.316</i>	High Flow 7Q10 = 11.81 cfs
30Q5 = 11.01 cfs	HM = 20.35 cfs

The high flow months are January through May. This facility will be removed from the site specific measurement list and placed on the maintenance list. If you have any questions concerning this analysis, please let me know.

Receiving Waters Information

The PReP complaint logs from the past five years were reviewed. None were received which may be attributed to the operation of the Floyd-Floyd County PSA STP.

The nearest upstream monitoring station is 9-DDD004.64, which is one mile above the discharge. The closest downstream monitoring station is 9-DDD002.62, about one mile below the discharge. The 2002 303(d) report lists 15.41 miles of Dodd Creek as impaired for not supporting the swimmable goal of the Clean Water Act. The segment extends from the mouth of Dodd Creek (River Mile 0.00) to RM 15.41 and includes the West Fork of Dodd Creek and an unnamed tributary to the West Fork of Dodd Creek. The impairment is caused by exceedances of the fecal coliform criteria for the stream. The impairment source is listed as Nonpoint Source – Agriculture/Wildlife/Domestic Septage. A 1.8-mile section of the West Fork of Dodd Creek (upstream of the discharge) is also listed for exceedances of the temperature criterion due to natural causes.

AUTHORIZATION TO BILL APPLICANT FOR A PUBLIC NOTICE

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once in the:

The Roanoke Times

Agent/Department to be billed: Floyd-Floyd County PSA

P.O. Box 407

Applicant's Address: Floyd VA 24091

Agent's Telephone No: (540) 745-2169

Authorizing Agent: *M. Elwood Keller* Superintendent
Signature

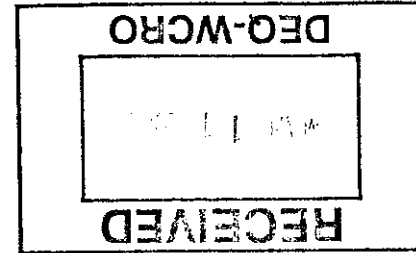
Facility Name: Floyd County STP
Permit No.: 0025992
Attn: Holly Williams

ATTENTION PERMITTEE: PLEASE COMPLETE THIS FORM AND RETURN IT WITHIN
14 DAYS TO

**Department of Environmental Quality
West Central Regional Office
3019 Peters Creek Rd.
Roanoke, VA 24019**

BF

Floyd-Floyd County
Public Service Authority
P. O. Box 407, Floyd, VA 24091



March 7, 2008

Department of Environmental Quality
Attn: Becky L. France
3019 Peters Creek Road
Roanoke, VA 24019

Dear Ms. France:

We request a waiver so that the 8 hour composite sample data collected during the permit term can be used for our BOD's and Total Suspended Solids. The application requires 24 hour composite data, but our permit required 8 hour composites.

We request a waiver so we can use the data from one grab sample for our Ammonia, Total Kheldahl Nitrogen, Nitrate plus Nitrite, Phosphorus, and Total Dissolved Solids. The application requires data from three 24 hour composite samples.

We request a waiver to allow our grab sample data be used for Oil and Grease.

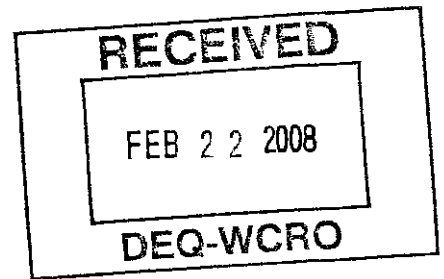
Thank you for your consideration.

Sincerely,

Elwood Holden
Superintendent
Floyd-Floyd County PSA

Hw

*Floyd-Floyd County
Public Service Authority
P. O. Box 407, Floyd, VA 24091*



February 20, 2008

Holly Williams
Department of Environmental Quality
3019 Peters Creek Road
Roanoke, VA 24019

Dear Mrs. Williams:

Enclosed are the results of the metal analysis. If you need any more information or if you have any questions please call.

Sincerely,

Elwood Holden
Superintendent
Floyd-Floyd County PSA



Certificate of Analysis

PCA Order No. 417534

Final Report

Prepared for:

Mr. Elwood Holden
Floyd County Public Service Authority
169 PSA Road
Floyd, VA 24091

Report Date: February 18, 2008

Date Received: January 29, 2008

Project:

Comments:

Analytical data are presented on the following pages of this report. If you have any questions or need further assistance, please feel free to contact your project manager at (540) 268-9884.

Respectfully Submitted by:

A handwritten signature in black ink, appearing to read "Susan M. Daniel", is written over a horizontal line.

Reviewed and Approved by:

A handwritten signature in black ink, appearing to read "Cheryl M. Daniel", is written over a horizontal line.

Cheryl M. Daniel
QA/QC Manager

Unless otherwise indicated, all analyses were conducted according to Standard Methods for the Examination of Water and Wastewater, 18th Edition, Test Methods for Evaluation Solid Waste (Physical/Chemical), 3rd Edition, and Methods for the Chemical Analysis of Water and Wastes, EPA.

This report sets forth the results of our analysis of samples delivered to our laboratory and shall not be construed to be a representation by ProChem Analytical Incorporated as to the source or method of procuring such samples. All reports are submitted as the confidential property of clients and authorization for publication of any statements contained in our reports is reserved pending our written consent.



Final Report

Report Date: 2/18/2008

PCA Order No.: 417534

Client: Floyd County Public Service Authority

Project:

Sample Number: 417534-01

Date Collected: 1/29/2008

Time Collected: 10:32

Description: 001 Effluent

Matrix: Wastewater

Sample Type: Grab

<u>Analysis</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Time Analyzed</u>	<u>Analyst</u>	<u>Method</u>
Mercury, Dissolved	< 0.0002	0.0002	mg/L	2/15/2008	11:18	KNB	EPA 245.2
Chemical Oxygen Demand	129	20	mg/L	2/6/2008	08:00	ASB	EPA 410.4
Hexavalent Chromium	< 0.002	0.002	mg/L	1/30/2008	07:00	ASB	ASTM D1687
Antimony, Dissolved	< 0.005	0.005	mg/L	2/1/2008	12:30	CDM	EPA 200.7
Arsenic, Dissolved	< 0.005	0.005	mg/L	2/1/2008	12:30	CDM	EPA 200.7
Cadmium, Dissolved	< 0.001	0.001	mg/L	2/1/2008	12:30	CDM	EPA 200.7
Chromium	< 0.005	0.005	mg/L	2/1/2008	12:30	CDM	EPA 200.7
Copper, Dissolved	0.012	0.005	mg/L	2/1/2008	12:30	CDM	EPA 200.7
Lead, Dissolved	< 0.005	0.005	mg/L	2/1/2008	12:30	CDM	EPA 200.7
Nickel, Dissolved	< 0.005	0.005	mg/L	2/1/2008	12:30	CDM	EPA 200.7
Selenium, Dissolved	< 0.005	0.005	mg/L	2/1/2008	12:30	CDM	EPA 200.7
Silver, Dissolved	< 0.002	0.002	mg/L	2/1/2008	12:30	CDM	EPA 200.7
Zinc, Dissolved	0.060	0.005	mg/L	2/1/2008	12:30	CDM	EPA 200.7



HW

Final Report

Report Date: 12/18/2007

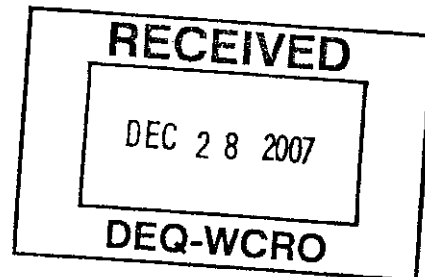
PCA Order No.: 416911
Client: Floyd County Public Service Authority
Project:

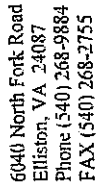
Sample Number: 416911-01
Date Collected: 12/11/2007
Time Collected: 08:00
Description: Upstream of Dodd Creek
Matrix: Surface Water
Sample Type: Grab

<u>Analysis</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Time Analyzed</u>	<u>Analyst</u>	<u>Method</u>
Hardness as CaCO ₃	34	5	mg/L	12/13/2007	13:00	KNB	SM 2340C

Sample Number: 416911-02
Date Collected: 12/11/2007
Time Collected: 08:00
Description: Outfall
Matrix: Surface Water
Sample Type: Grab

<u>Analysis</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Time Analyzed</u>	<u>Analyst</u>	<u>Method</u>
Hardness as CaCO ₃	109	5	mg/L	12/13/2007	13:00	KNB	SM 2340C





PCA Order ID # 416911

Page 1 of 1
Is Order Complete? ☐ Yes ☐ No

Please Print. See Chain of Custody Instructions for additional help with corresponding numbers.

1. Mail Report to:	
Company Name:	
Attention:	Mr./Ms. Floyd Co. P.S.A.
Address:	P.O. BOX 407 Floyd, VA 24051-0407
City, State, Zip:	
Telephone:	745-4444 FAX:
Email:	

2. Bill to:	
Company Name:	
Attention:	Mr. / Ms. Floyd-Floyd Co. P.S.A.
Address:	P.O. Box 407
City, State, Zip:	Floyd, VA 24091-0407
Telephone:	
Purchase Order No.:	Quotation No.:

3. Turn Around Time Request
☐ Standard Business Day
☐ 3-4 Business Day Rush
☐ 2 Business Day Rush

Note: All rush turn around times are subject to ProChem Analytical approval and additional fees.

[illegible]



Certificate of Analysis

PCA Order No. 416911

Final Report

Prepared for:

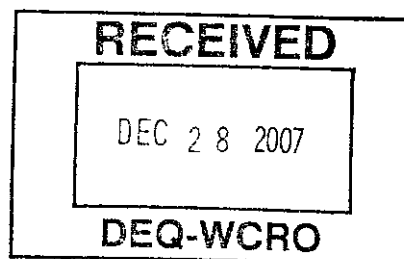
Mr. Jim Linkenhoker
Floyd County Public Service Authority
169 PSA Road
Floyd, VA 24091

Report Date: December 18, 2007

Date Received: December 11, 2007

Project:

Comments:



Analytical data are presented on the following pages of this report. If you have any questions or need further assistance, please feel free to contact your project manager at (540) 268-9884.

Respectfully Submitted by:

Reviewed and Approved by:

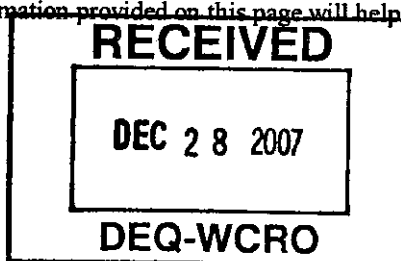
Cheryl M. Daniel
QA/QC Manager

Unless otherwise indicated, all analyses were conducted according to Standard Methods for the Examination of Water and Wastewater, 18th Edition, Test Methods for Evaluation Solid Waste (Physical/Chemical), 3rd Edition, and Methods for the Chemical Analysis of Water and Wastes, EPA.

This report sets forth the results of our analysis of samples delivered to our laboratory and shall not be construed to be a representation by ProChem Analytical Incorporated as to the source or method of procuring such samples. All reports are submitted as the confidential property of clients and authorization for publication of any statements contained in our reports is reserved pending our written consent.

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.



1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? ☒ Yes ☐ No

Will this facility derive a material from sewage sludge? ☐ Yes ☒ No

If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? ☐ Yes ☒ No

Will sewage sludge from this facility be applied to the land? ☐ Yes ☒ No

If you answered No to both questions above, skip Section C.

If you answered Yes to either, answer the following three questions:

a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
☐ Yes ☐ No

b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? ☐ Yes ☐ No

c. Will sewage sludge from this facility be sent to another facility for treatment or blending? ☐ Yes ☒ No

If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? ☐ Yes ☒ No

If Yes, complete Section D (Surface Disposal).

All applicants must complete this section.

1. Facility Information.

- a. Facility name: Floyd-Floyd County Public Service Authority
- b. Contact person: N. Elwood Holden
Title: Superintendent
Phone: (540)-745-2169
- c. Mailing address:
Street or P.O. Box: P.O. Box 407
City or Town: Floyd State: VA Zip: 24091
- d. Facility location:
Street or Route #: 169 PSA Road
County: Floyd
City or Town: _____ State: VA Zip: 24091
- e. Is this facility a Class I sludge management facility? ___ Yes ☒ No
- f. Facility design flow rate: .250 mgd
- g. Total population served: 1550
- h. Indicate the type of facility:
☒ Publicly owned treatment works (POTW)
___ Privately owned treatment works
___ Federally owned treatment works
___ Blending or treatment operation
___ Surface disposal site
___ Other (describe): _____

2. Applicant Information. If the applicant is different from the above, provide the following:

- a. Applicant name: N/A
- b. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- c. Contact person: _____
Title: _____
Phone: () _____
- d. Is the applicant the owner or operator (or both) of this facility?
___ owner ___ operator
- e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
___ facility ___ applicant

3. Permit Information.

- a. Facility's VPDES permit number (if applicable): VA 0025992
- b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
Permit Number: _____ Type of Permit: _____
N/A _____

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? ___ Yes ☒ No If yes, describe:

FACILITY NAME: Floyd-Floyd County Public Service Authority VPDES PERMIT NUMBER: VA 0025992

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:

- Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
- Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? ☒ Yes ☐ No
If yes, provide the following for each contractor (attach additional pages if necessary).

Name: S. R. Goff Hauling, Inc.

Mailing address:

Street or P.O. Box: P.O. Box 30

City or Town: Shawsville State: VA Zip: 24162

Phone: (540) 268-5939

Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:
MC 203859

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic	(see attachment)			
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

☒ Section A (General Information)

☒ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

☐ Section C (Land Application of Bulk Sewage Sludge)

☐ Section D (Surface Disposal)

FACILITY NAME: Floyd-Floyd County Public Service Authority VPDES PERMIT NUMBER: VA 0025992

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title N. Elwood Holden, Superintendent

Signature N. Elwood Holden Date Signed 3-07-08

Telephone number (540) 745-4444

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: Floyd-Floyd County Public Service Authority VPDES PERMIT NUMBER: VA 0025992

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title N. Elwood Holden, Superintendent

Signature N. Elwood Holden Date Signed 12-5-07

Telephone number (540) 745-4444

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: Floyd-Floyd County Public Service Authority VPDES PERMIT NUMBER: VA 0025992
SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION
OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
Total dry metric tons per 365-day period generated at your facility: 64.12 metric tons
2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
 - a. Facility name: N/A
 - b. Contact Person: _____
Title: _____
Phone () _____
 - c. Mailing address: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
 - d. Facility Address: _____
(not P.O. Box) _____
 - e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons
 - f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:
N/A
3. Treatment Provided at Your Facility.
 - a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
A Class A Class B Neither or unknown
 - b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: _____
 - c. Which vector attraction reduction option is met for the sewage sludge at your facility?
 Option 1 (Minimum 38 percent reduction in volatile solids)
 Option 2 (Anaerobic process, with bench-scale demonstration)
 Option 3 (Aerobic process, with bench-scale demonstration)
 Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
 Option 5 (Aerobic processes plus raised temperature)
 Option 6 (Raise pH to 12 and retain at 11.5)
 Option 7 (75 percent solids with no unstabilized solids)
 Option 8 (90 percent solids with unstabilized solids)
x None or unknown
 - d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: sludge press & sludge drying bed as backup description attached
 - e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: N/A
4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
 - a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _____ dry metric tons
 - b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?

11. Sludge Belt Press

a. Process Description

Sludge from the aerobic digester flows by gravity to the sludge press located in the mechanical building. The sludge press also includes a positive displacement pump to control the rate of flow into the press.

Sludge is pumped to a stainless steel flocculation tank. Prepared polymer is simultaneously injected to the inlet of the flocculation tank by a variable speed chemical dosing pump. Here a thorough mixing occurs that is aided by a variable speed flocculator fitted in the tank. Polymer addition encourages sludge dewatering by coagulating and flocculating the sludge particles. The polymer coagulates the sludge particles by neutralizing its ionic charge. As it neutralizes the charge, small tight particles are formed. Flocculation causes these tight particles to bond to each other, thereby creating larger flocs that facilitate the dewatering process.

Flocculated sludge flows down a sludge feed chute. This chute provides a gentle and even distribution of sludge over the gravity drainage section and a uniform thickness on the dewatering belt. The drainage area allows for the separation of the free water contained within the sludge and its consequent discharge into the drainage tray. Capillary action takes place as the dewatering belt moves across tracking and pressure rollers. Further liquid removal is achieved as the belt and sludge are pressed between a series of rubber covered rollers. Gradually the sludge is squeezed by adjustable rollers. Dewatered sludge is continuously removed by a fixed scraper blade acting against the final roller and allowed to fall into a horizontal conveyor. The conveyor transports the dewatered sludge into a container. Once the container fills, it is stored in the mechanical building. The dried sludge is then hauled to the Maplewood Recycling and Waste Disposal facility in Amelia County.

 Floyd WWTP Operations & Maintenance Manual (JN 17079/17940)

13. Backup Sludge Drying Beds

a. Description

The sludge drying bed dewateres digested sludge through evaporation and percolation. The bed consists of an underdrain system, a layer of open graded crushed rock and a cover of 12" of special filter sand. Under optimum conditions, an 8" blanket of sludge will dry in 30 days while about 45 days will normally be required. Drying time will vary depending on the weather. The sludge is dry when cracks appear at the surface and extend to the sand bed. The dried sludge may be removed by hand with a tine fork, shovel or mechanically with the use of a small front-end loader. Dried sludge will normally be disposed of at the Maplewood Recycling and Waste Disposal facility in accordance with the approved Sludge Disposal Plan.

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: N/A dry metric tons
- b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

- a. Receiving facility name: N/A
- b. Facility contact: _____
Title: _____
Phone: () _____
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____ dry metric tons
- e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:
Permit Number: _____ Type of Permit: _____
- f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? Yes No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
Class A Class B Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: _____
- g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? Yes No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
Option 1 (Minimum 38 percent reduction in volatile solids)
Option 2 (Anaerobic process, with bench-scale demonstration)
Option 3 (Aerobic process, with bench-scale demonstration)
Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
Option 5 (Aerobic processes plus raised temperature)
Option 6 (Raise pH to 12 and retain at 11.5)
Option 7 (75 percent solids with no unstabilized solids)
Option 8 (90 percent solids with unstabilized solids)
None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: _____
- h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
Yes No
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above: _____
- i. If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility

FACILITY NAME: Floyd-Floyd County PSA

VPDES PERMIT NUMBER: VA 0025992

to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

- j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? Yes ☒ No
If yes, provide a copy of all labels or notices that accompany the product being sold or given away.
- k Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? Yes ☐ No ☐ If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. _____

7. Land Application of Bulk Sewage Sludge.

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites N/A dry metric tons
- b. Do you identify all land application sites in Section C of this application? Yes ☐ No ☐
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).
- c. Are any land application sites located in States other than Virginia? Yes ☐ No ☐
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal.

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: N/A dry metric tons
- b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
Yes ☐ No ☐
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.
- c. Site name or number: _____
- d. Contact person: _____
Title: _____
Phone: () _____
Contact is: ☐ Site Owner ☐ Site operator
- e. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons
- g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:
Permit Number: _____ Type of Permit: _____

9. Incineration.

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

FACILITY NAME: Floyd-Floyd County PSA

VPDES PERMIT NUMBER: VA 0025992

- a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons
- b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
 ___ Yes ___ No
 If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.
- c. Incinerator name or number: _____
- d. Contact person: _____
 Title: _____
 Phone: () _____
 Contact is: ___ Incinerator Owner ___ Incinerator Operator
- e. Mailing address.
 Street or P.O. Box: _____
 City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons
- g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:
Permit Number: _____ Type of Permit: _____

10. Disposal in a Municipal Solid Waste Landfill.

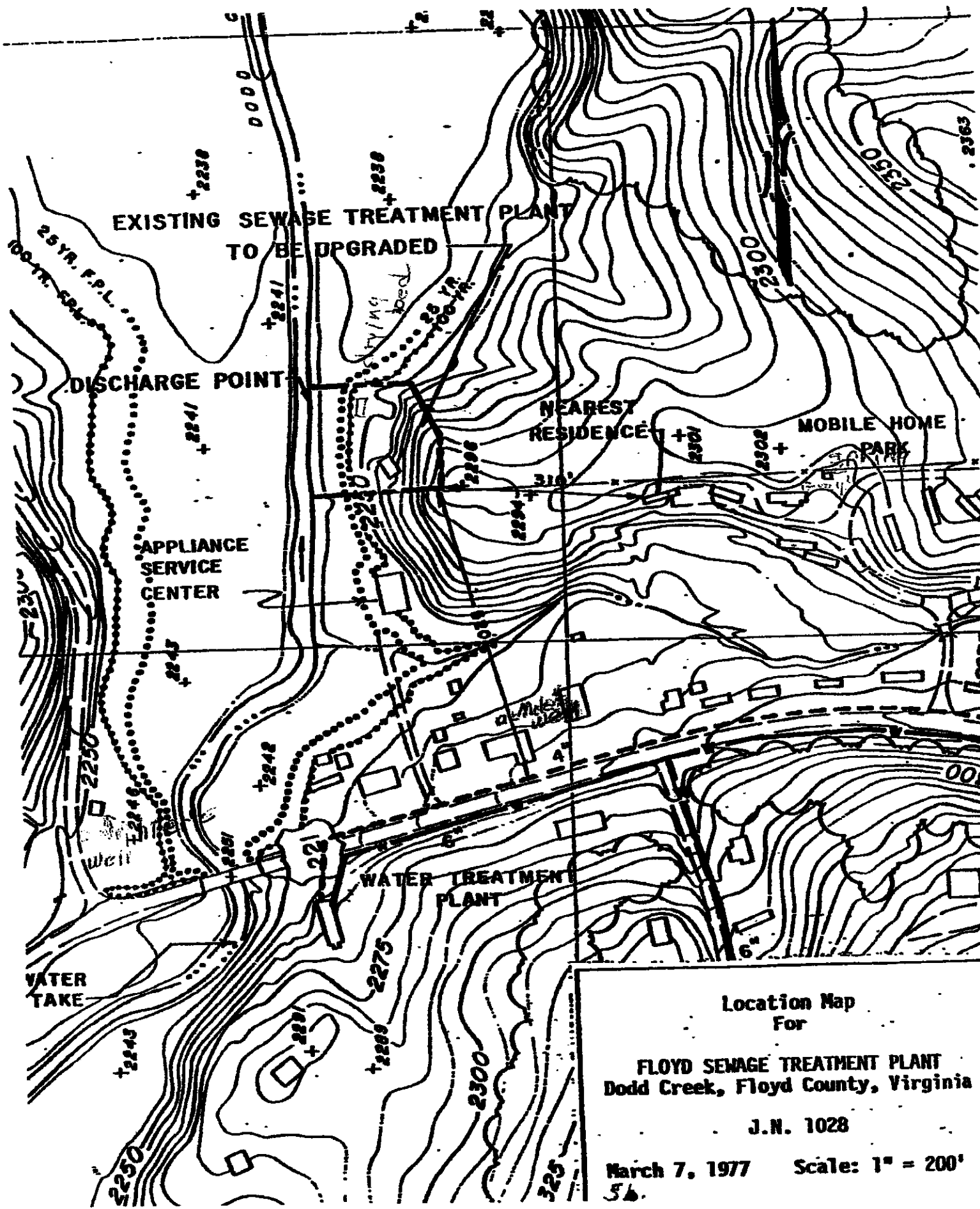
(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

- a. Landfill name: Maplewood Recycling & Waste Disposal Facility
- b. Contact person: Angela Bond
 Title: Technical Service Rep.
 Phone: (804) 561-5787
 Contact is: ___ Landfill Owner X Landfill Operator
- c. Mailing address.
 Street or P.O. Box: 20221 Maplewood Road
 City or Town: Jettersville State: VA Zip: 23083
- d. Landfill location.
 Street or Route #: Route 597 in Amelia County, VA approximately 37 miles
 County: Amelia southwest of Richmond
 City or Town: _____ State: VA Zip: 23083
- e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:
64.12 dry metric tons
- f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:
Permit Number: 540 Type of Permit: Permit
- g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
X Yes ___ No
- h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? X Yes ___ No
- i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? X Yes ___ No
 Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported. Rt. 8 to Interstate 81N., to 581 S., to 46 E., into Jettersville; Monday thru Friday, 9:00 a.m. until 2:00 p.m.

**Final Report****Report Date:** 5/16/2007**PCA Order No.:** 413319**Client:** Floyd County Public Service Authority**Project:** *Pollutants***Sample Number:** 413319-01**Date Collected:** 5/8/2007**Time Collected:** 08:30**Description:** Drying Bed**Matrix:** Sludge**Sample Type:** Grab

<u>Analysis</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Time Analyzed</u>	<u>Analyst</u>	<u>Method</u>
pH, Laboratory	6.06	NA	S.U.	5/8/2007	20:00	PJF	SW-846 9045C
Mercury, TCLP	< 0.002	0.002	mg/L	5/11/2007	09:47	ASB	SW-846 7470A
TCLP Metals							
Arsenic, TCLP	< 0.005	0.005	mg/L	5/10/2007	17:00	CDM	SW-846 6010B
Barium, TCLP	0.105	0.001	mg/L	5/10/2007	17:00	CDM	SW-846 6010B
Cadmium, TCLP	< 0.001	0.001	mg/L	5/10/2007	17:00	CDM	SW-846 6010B
Chromium, TCLP	< 0.005	0.005	mg/L	5/10/2007	17:00	CDM	SW-846 6010B
Lead, TCLP	< 0.005	0.005	mg/L	5/10/2007	17:00	CDM	SW-846 6010B
Selenium, TCLP	< 0.005	0.005	mg/L	5/10/2007	17:00	CDM	SW-846 6010B
Silver, TCLP	< 0.002	0.002	mg/L	5/10/2007	17:00	CDM	SW-846 6010B

8. Pollutants



Location Map
For

FLOYD SEWAGE TREATMENT PLANT
Dodd Creek, Floyd County, Virginia

J.N. 1028

March 7, 1977 Scale: 1" = 200'
56.

Sludge is drained from primary clarifiers #15 & 16 & secondary clarifier #17 & 18 to sludge pump #20.

Sludge is then pumped to digester and treated by aeration.

Approximately once monthly, water is drawn from digester valve #11 to Decant pump#22. It is then pumped to primary clarifiers after treatment in digester approximately 45 days.

Sludge is drawn monthly to Valve #26 and pressed on sludge press or may be drawn to drying bed #34 if needed. Pressed sludge is stored in designated storage building. Then sludge is hauled to Maplewood Recycling & Waste Disposal Facility located in Jeterville, VA



Figure 1. Proposed Hauling Route (To Maplewood Waste Disposal Facility)
Floyd-Floyd County PSA Sludge Disposal Plan

10.1

5. The Ag.
shall cons.
that may be:

6. Waste
Facility
has:

MAPLEWOOD RECYCLING & WASTE DISPOSAL FACILITY

20221 Maplewood Road

Jetersville, VA 23083

(804)561-5787

(804)561-5798 FAX

LOCATION: Located on Route 597 in Amelia County, VA, approximately 37 miles southwest of Richmond.

ACREAGE AND PERMITTED CAPACITY: 404 permitted acres, 804 total acres.
Average Daily Volume - 2,200 tons per day.
Maximum Daily Volume - 5,000 tons per day.

PERMIT: Virginia Department of Waste Management Permit #540.

HOURS OF OPERATION: Monday - Friday 7:00 a.m. - 5:00 p.m.
Saturday 7:00 a.m. - 12:00 p.m.

ACCEPTABLE WASTES: Municipal solid waste, construction and demolition, asbestos and pre-approved special wastes, such as: sludges, contaminated soils, ash and residuals.

UNACCEPTABLE WASTES: Hazardous waste and waste containing free liquids.

CONTAINMENT DESIGN: The double composite liner system exceeds present VDWM and Subtitle D regulations. Primary liner system is 60 mil HDPE geomembrane above a clay bentonite matting. A 60 mil HDPE secondary liner is underlain with compacted clay.

LEACHATE COLLECTION AND TREATMENT: Leachate collection system; leachate is sent to a local POTW for treatment.

GROUNDWATER MONITORING: 12 groundwater monitoring wells surrounding the site.

SECURITY: The site is contained by perimeter fencing and has a single access point at the front gate. Incoming vehicles must register at the guardhouse where waste is visibly screened. Special waste must be pre-approved and activities at the gate are videotaped 24 hours a day.

GAS MANAGEMENT: Landfill gases are extracted and flared in accordance with EPA standards.

TRANSPORTATION: Easy access to the site via Interstate 95 and Interstate 64. Site contains a rail siding with direct connection to Norfolk Southern rail line.



Generator's Nonhazardous Waste Profile Sheet

Regulatory Status (Please check appropriate responses)

1. Is this a USEPA (40 CFR Part 261)/State hazardous waste? If yes, contact your sales representative. ☐ Yes ☒ No
2. Is this waste included in one or more of categories below (Check all that apply)? If yes, attach supporting documentation. ☐ Yes ☒ No
- ☐ Delisted Hazardous Waste ☐ Excluded Wastes Under 40 CFR 261.4
- ☐ Treated Hazardous Waste Residue ☐ Treated (Catalytic) Hazardous Waste
3. Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated clean-up? If yes, see instructions. ☐ Yes ☒ No
4. Does the waste represented by this waste profile sheet contain radioactive material? ☐ Yes ☒ No
- a. If yes, is disposal regulated by the Nuclear Regulatory Commission? ☐ Yes ☐ No
- b. If yes, is disposal regulated by a State Agency for radioactive waste/MSW? ☐ Yes ☐ No
5. Does the waste represented by this waste profile sheet contain concentrations of regulated Polychlorinated Biphenyls (PCBs)? ☐ Yes ☒ No
- a. If yes, is disposal regulated under TSCA? ☐ Yes ☐ No
6. Does the waste contain untreated, regulated, medical or infectious waste? ☐ Yes ☒ No
7. Does the waste contain asbestos? ☐ Yes ☒ No
8. Is this profile for remediation waste from a facility that is a major source of Hazardous Air Pollutants (Site Remediation RESMAP, 40 CFR 63 subpart GGGGG)? ☐ Yes ☒ No
- If yes, does the waste contain <500 ppmw VOMAPs at the point of determination? ☐ Yes ☒ No

II. Generator Certification (Please read and certify by signature below)

By signing this Generator's Waste Profile Sheet, I hereby certify that all:

- Information submitted in this profile and all attached documents contain true and accurate descriptions of the waste material;
 - Relevant information within the possession of the Generator regarding known or suspected hazards pertaining to this waste has been disclosed to WMI/Contractor;
 - Analytical data attached pertaining to the profiled waste was derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules; and
 - Changes that occur in the character of the waste (i.e. changes in the process or new analytical) will be identified by the Generator and disclosed to WMI (and the Contractor if applicable) prior to providing the waste to WMI (and the Contractor if applicable).
5. Check all that apply:

☒ Attached analytical pertains to the waste. Identify laboratory & sample ID #'s and parameters tested: _____ # Pages: 1

☐ Only the analyses identified on the attachment pertain to the waste (Identify by laboratory & sample ID #'s and parameters tested). Attachment #: _____

☐ Additional information necessary to characterize the profiled waste has been attached (other than analytical). Indicate the number of attached pages: _____

☐ I am an agent signing on behalf of the Generator, and the delegation of authority to me from the Generator for this signature is available upon request.

☐ By Generator process knowledge, the following waste is not a listed waste and is below all TLP regulatory limits.

Certification Signature: Elwood Holden

Title: Superintendent

Company Name: Floyd-Floyd Co. P.S.A.

Name (Print): Elwood Holden

Date: May 17, 2007

FORM WASTE-001-0001

Management Method: ☐ Landfill ☐ Bioremediation

Approval Decision:

☐ Approved

☐ Not Approved

☐ Non-hazardous solidification ☐ Other: _____

Waste Approval Expiration Date: _____

Management Facility Precautions, Special Handling Procedures or Limitation on approval: _____

☐ Shall not contain free liquid

☐ Shipment must be scheduled into disposal facility

☐ Approval Number must accompany each shipment

☐ Waste Manifest must accompany load

Date: _____

Date: _____

WMI Authorization Name / Title: _____

State Authorization (If Required): _____

Generator's Nonhazardous Waste Profile Sheet

Requested Disposal Facility Amelia Landfill Profile Number

Removal for Profile Number

Waste Approval Expiration Date 6/13/07

Waste Generator Facility Information (must reflect location of waste generation/origin)

Generator Name: Floyd-Floyd County P.S.A.

2. Site Address: 169 PSA Road

7. Email Address: floydpsa@surva.net

3. City/ZIP: Floyd 24091

8. Phone: (540) 745-2169 9. FAX: (540) 745-5690

4. State: VA

10. HMTS Code:

5. County: Floyd

11. Generator USEPA ID #:

6. Contact Name/Title: Elwood Holden/Superintendent

12. State ID# (if applicable):

B. Customer Information (same as above)

P. O. Number:

1. Customer Name: Floyd-Floyd Co P.S.A.

6. Phone: (540) 745-4444 FAX: (540) 745-5690

2. Billing Address: P.O. Box 407

7. Transporter Name: Goff Trucking

3. City, State and ZIP: Floyd, VA 24091

8. Transporter ID # (if appl.):

4. Contact Name: Elwood Holden

9. Transporter Address: P.O. Box 30

5. Contact Email: floydpsa@surva.net

10. City, State and ZIP: Shawsville, VA 24162

C. Waste Stream Information

1. DESCRIPTION

a. Common Waste Name: Dehydrated-digested sludge State Waste Code(s):

b. Describe Process Generating Waste or Source of Contamination:

Belt pressed

c. Typical Color(s): Gray

d. Strong Odor? ☐ Yes ☒ No Describe:

e. Physical State at 70°F: ☐ Solid ☐ Liquid ☐ Powder ☒ Semi-Solid or Sludge ☐ Other:

f. Layers? ☐ Single layer ☐ Multi-layer ☒ NA

g. Water Reactive? ☐ Yes ☒ No If Yes, Describe:

h. Free Liquid Range (%): _____ to _____ ☒ NA(solid)

i. pH Range: ☐ ≤ 2.1 ☒ 2.1-12.4 ☐ ≥ 12.5 ☐ NA(solid) ☒ Actual: 6.0

j. Liquid Flash Point: ☐ < 140°F ☐ ≥ 140°F ☒ NA(solid) ☐ Actual:

k. Flammable Solid: ☐ Yes ☒ No

l. Physical Constituents: List all constituents of waste stream - (e.g. Soil 0-50%, Wood 0-20%): ☐ (See Attached)

Constituents (Total Composition Must be ≥ 100%)	Concentration %	Constituents (Total Composition Must be ≥ 100%)	Concentration %
1. _____	_____	4. _____	_____
2. _____	_____	5. _____	_____
3. _____	_____	6. _____	_____

2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMATION

a. ☐ Event ☒ Base/Ongoing (Check One)

b. Estimated Annual Quantity: 80 ☒ Tons ☐ Cubic Yards ☐ Barrels ☐ Gallons ☐ Other (specify):

c. Shipping Frequency: 1 Units per ☐ Month ☒ Quarter ☐ Year ☐ One Time ☐ Other

d. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If yes, answer e.) ☐ Yes ☒ No

e. USDOT Shipping Description (if applicable):

3. SAFETY REQUIREMENTS (Handling, PPE, etc.):